

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/809,312A  
Source: 1FW0  
Date Processed by STIC: 4/12/05

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 04/12/2005

PATENT APPLICATION: US/10/809,312A

TIME: 14:13:58

Input Set : A:\Sequence Listing 5199-69.txt

Output Set: N:\CRF4\04122005\J809312A.raw

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3 <110> APPLICANT: Columbia University
4     Greene, Lloyd A.
5     Angelastro, James M.
7 <120> TITLE OF INVENTION: Methods for Regulating Differentiation of Neural Cells and
Uses
8     Thereof
10 <130> FILE REFERENCE: 5199-69
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/809,312A
14 <141> CURRENT FILING DATE: 2004-03-24
16 <150> PRIOR APPLICATION NUMBER: 60/460,242
18 <151> PRIOR FILING DATE: 2003-04-04
20 <160> NUMBER OF SEQ ID NOS: 20
22 <170> SOFTWARE: PatentIn version 3.2
24 <210> SEQ ID NO: 1
26 <211> LENGTH: 1034
28 <212> TYPE: DNA
30 <213> ORGANISM: Human
32 <400> SEQUENCE: 1
34 gcacctgtgc ctcagccatg tcaactcctgg cgaccctggg actggagctg gacagggccc      60
36 tgctcccagc tagcgggctg ggctggctcg tagactatgg gaaactcccc ctggcccctg      120
38 cccccctggg cccctatgag gtccttgggg gtgccctgga gggcgggctt ccaggggggg      180
40 gagagcccct ggcaggtgac ggcttctctg attggatgac cgagcgggtg gacttcacag      240
42 cctccttcc tctggaggcc cctctgcccc caggcactct cccccaccc tcccctgccc      300
44 cccctgacct ggaagccatg gcatccctac tcaagaagga gctagaacag atggaagact      360
46 tcttccttga tgccccactc cttccaccgc cttccccacc tccaccccca cccccagcac      420
48 cctctctgcc cctgcccctta ccttgccca cctttgatct cccgcagcct cctaccctgg      480
50 ataccctgga cttgctagct gtttactgcc gcagtgaggc tgggccaggg gattcaggct      540
52 tgacaaccct gcctgtcccc cagcagcctc ctccctctggc ccctctgcct tcaccctccc      600
54 gaccagcccc ctatcctagt cctgccagca cccgagggga ccgcaagcaa aagaagagag      660
56 accagaataa gtcagctgct ctcaggtacc gccagaggaa gcgggcagag ggcgaggccc      720
58 tggagggcga gtgccaaagg ctagaggcgc ggaatcgga gctgaggag agggcagagt      780
60 cagtgaacg ggagatccag tatgtgaagg atctgctaag tgaggtgtat aaggcacgaa      840
62 gccagaggac ccgagtgcc tagggtacag gaggaggcag ttctggtgta cctgtgcctc      900
64 cagcttcacc ctgtccctcc atttcacttc cctgtgcata cgtgtctagg tctccctct      960
66 gcctatcccc attatgggtt atttggcata gtcagtttct gtacccttc agtgcaactg      1020
68 agaaccaagc tcga                                     1034
70 <210> SEQ ID NO: 2
72 <211> LENGTH: 281
74 <212> TYPE: PRT
76 <213> ORGANISM: Human
78 <400> SEQUENCE: 2
80 Met Ser Leu Leu Ala Thr Leu Gly Leu Glu Leu Asp Arg Ala Leu Leu
81 1             5             10             15
84 Pro Ala Ser Gly Leu Gly Trp Leu Val Asp Tyr Gly Lys Leu Pro Leu

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85          20          25          30
88 Ala Pro Ala Pro Leu Gly Pro Tyr Glu Val Leu Gly Gly Ala Leu Glu
89          35          40          45
92 Gly Gly Leu Pro Gly Gly Gly Glu Pro Leu Ala Gly Asp Gly Phe Ser
93          50          55          60
96 Asp Trp Met Thr Glu Arg Val Asp Phe Thr Ala Leu Leu Pro Leu Glu
97 65          70          75          80
100 Ala Pro Leu Pro Pro Gly Thr Leu Pro Pro Pro Ser Pro Ala Pro Pro
101          85          90          95
104 Asp Leu Glu Ala Met Ala Ser Leu Leu Lys Lys Glu Leu Glu Gln Met
105          100          105          110
108 Glu Asp Phe Phe Leu Asp Ala Pro Leu Leu Pro Pro Pro Ser Pro Pro
109          115          120          125
112 Pro Pro Pro Pro Pro Ala Pro Ser Leu Pro Leu Pro Leu Pro Leu Pro
113          130          135          140
116 Thr Phe Asp Leu Pro Gln Pro Pro Thr Leu Asp Thr Leu Asp Leu Leu
117 145          150          155          160
120 Ala Val Tyr Cys Arg Ser Glu Ala Gly Pro Gly Asp Ser Gly Leu Thr
121          165          170          175
124 Thr Leu Pro Val Pro Gln Gln Pro Pro Pro Leu Ala Pro Leu Pro Ser
125          180          185          190
128 Pro Ser Arg Pro Ala Pro Tyr Pro Ser Pro Ala Ser Thr Arg Gly Asp
129          195          200          205
132 Arg Lys Gln Lys Lys Arg Asp Gln Asn Lys Ser Ala Ala Leu Arg Tyr
133          210          215          220
136 Arg Gln Arg Lys Arg Ala Glu Gly Glu Ala Leu Glu Gly Glu Cys Gln
137 225          230          235          240
140 Gly Leu Glu Ala Arg Asn Arg Glu Leu Arg Glu Arg Ala Glu Ser Val
141          245          250          255
144 Glu Arg Glu Ile Gln Tyr Val Lys Asp Leu Leu Ile Glu Val Tyr Lys
145          260          265          270
148 Ala Arg Ser Gln Arg Thr Arg Ser Ala
149          275          280
152 <210> SEQ ID NO: 3
154 <211> LENGTH: 15
156 <212> TYPE: DNA
158 <213> ORGANISM: rat
160 <400> SEQUENCE: 3
162 catgagaacc tagtc
164 <210> SEQ ID NO: 4
166 <211> LENGTH: 19
168 <212> TYPE: DNA
170 <213> ORGANISM: artificial sequence
172 <220> FEATURE:
174 <223> OTHER INFORMATION: primer
176 <400> SEQUENCE: 4
178 cttggtttct cagttgcac
180 <210> SEQ ID NO: 5
182 <211> LENGTH: 23

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184 <212> TYPE: DNA
186 <213> ORGANISM: artificial sequence
188 <220> FEATURE:
190 <223> OTHER INFORMATION: primer
192 <400> SEQUENCE: 5
194 tgcacctgtg cctcagccat gtc 23
196 <210> SEQ ID NO: 6
198 <211> LENGTH: 57
200 <212> TYPE: DNA
202 <213> ORGANISM: artificial sequence
204 <220> FEATURE:
206 <223> OTHER INFORMATION: primer
208 <400> SEQUENCE: 6
210 ctcgagaacc atggactaca aggacgatga tgacaaagga tcaactcctgg cgaccct 57
212 <210> SEQ ID NO: 7
214 <211> LENGTH: 57
216 <212> TYPE: DNA
218 <213> ORGANISM: artificial sequence
220 <220> FEATURE:
222 <223> OTHER INFORMATION: primer
224 <400> SEQUENCE: 7
226 ctcgagaagc atggactaca aggacgatga tgacaaagga gcatccctac tcaagaa 57
228 <210> SEQ ID NO: 8
230 <211> LENGTH: 30
232 <212> TYPE: DNA
234 <213> ORGANISM: artificial sequence
236 <220> FEATURE:
238 <223> OTHER INFORMATION: primer
240 <400> SEQUENCE: 8
242 gaattctcga gcttggtttc tcagttgcac 30
244 <210> SEQ ID NO: 9
246 <211> LENGTH: 57
248 <212> TYPE: DNA
250 <213> ORGANISM: artificial sequence
252 <220> FEATURE:
254 <223> OTHER INFORMATION: primer
256 <400> SEQUENCE: 9
258 ctcgagaagc atggactaca aggacgatga tgacaaagga gcatccctac tcaagaa 57
260 <210> SEQ ID NO: 10
262 <211> LENGTH: 87
264 <212> TYPE: DNA
266 <213> ORGANISM: artificial sequence
268 <220> FEATURE:
270 <223> OTHER INFORMATION: primer
272 <400> SEQUENCE: 10
274 ttctttctgct tctttttcta gtagttcttc gttttctctt gctagttctt ctgctctttg 60
276 ttcgagggtg ctggcaggac taggata 87
279 <210> SEQ ID NO: 11
281 <211> LENGTH: 83

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Input Set : A:\Sequence Listing 5199-69.txt

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283 <212> TYPE: DNA
285 <213> ORGANISM: artificial sequence
287 <220> FEATURE:
289 <223> OTHER INFORMATION: primer
291 <400> SEQUENCE: 11
293 gcaagagaaa acgaagaact actagaaaaa gaagcagaag aactagaaca agaaatgcag      60
295 agctagaggg cgagtgccaa ggg                                           83
298 <210> SEQ ID NO: 12
300 <211> LENGTH: 30
302 <212> TYPE: DNA
304 <213> ORGANISM: artificial sequence
306 <220> FEATURE:
308 <223> OTHER INFORMATION: primer
310 <400> SEQUENCE: 12
312 gaattctcga gcttggtttc tcagttgcac      30
314 <210> SEQ ID NO: 13
316 <211> LENGTH: 57
318 <212> TYPE: DNA
320 <213> ORGANISM: artificial sequence
322 <220> FEATURE:
324 <223> OTHER INFORMATION: primer
326 <400> SEQUENCE: 13
328 ctgagaagc atggactaca aggacgatga tgacaaagga gcatccctac tcaagaa      57
331 <210> SEQ ID NO: 14
333 <211> LENGTH: 30
335 <212> TYPE: DNA
337 <213> ORGANISM: artificial sequence
339 <220> FEATURE:
341 <223> OTHER INFORMATION: primer
343 <400> SEQUENCE: 14
345 gaattctcga gcttggtttc tcagttgcac      30
348 <210> SEQ ID NO: 15
350 <211> LENGTH: 100
352 <212> TYPE: DNA
354 <213> ORGANISM: artificial sequence
356 <220> FEATURE:
358 <223> OTHER INFORMATION: primer
360 <400> SEQUENCE: 15
362 gaattcaacc atggactaca aggacgatga tgacaaaatg gcatctatga ctggaggaca      60
364 acaaattggga agagaccag acctcgaaca aagagcagaa      100
367 <210> SEQ ID NO: 16
369 <211> LENGTH: 30
371 <212> TYPE: DNA
373 <213> ORGANISM: artificial sequence
375 <220> FEATURE:
377 <223> OTHER INFORMATION: primer
379 <400> SEQUENCE: 16
381 gaattctcga gcttggtttc tcagttgcac      30
384 <210> SEQ ID NO: 17

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## RAW SEQUENCE LISTING

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Input Set : A:\Sequence Listing 5199-69.txt

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386 <211> LENGTH: 99
388 <212> TYPE: PRT
390 <213> ORGANISM: artificial sequence
392 <220> FEATURE:
394 <223> OTHER INFORMATION: tag
396 <400> SEQUENCE: 17
398 Met Asp Tyr Lys Asp Asp Asp Asp Lys Met Ala Ser Met Thr Gly Gly
399 1          5          10          15
402 Gln Gln Met Gly Arg Asp Pro Asp Leu Glu Gln Arg Ala Glu Glu Leu
403          20          25          30
406 Arg Glu Asn Glu Glu Leu Leu Glu Lys Glu Ala Glu Glu Leu Glu Gln
407          35          40          45
410 Glu Asn Ala Glu Leu Glu Gly Glu Cys Gln Gly Leu Glu Ala Arg Asn
411          50          55          60
414 Arg Glu Leu Arg Glu Arg Ala Glu Ser Val Glu Arg Glu Ile Gln Tyr
415 65          70          75          80
418 Val Lys Asp Leu Leu Ile Glu Val Tyr Lys Ala Arg Ser Gln Arg Thr
419          85          90          95
421 Arg Ser Ala
423 <210> SEQ ID NO: 18
425 <211> LENGTH: 92
427 <212> TYPE: DNA
429 <213> ORGANISM: artificial sequence
431 <220> FEATURE:
433 <223> OTHER INFORMATION: synthetic oligo nucleotide
435 <400> SEQUENCE: 18
437 tcgagtcatg gtaaaaatga cgtcatggta attatcatgg taaaaatgac gtcatggtaa      60
439 ttatcatggt aaaaatgacg tcatggtaat ta                                92
441 <210> SEQ ID NO: 19
443 <211> LENGTH: 92
445 <212> TYPE: DNA
447 <213> ORGANISM: artificial sequence
449 <220> FEATURE:
451 <223> OTHER INFORMATION: synthetic oligo nucleotide
453 <400> SEQUENCE: 19
455 agcttaatta ccatgacgtc atttttacca tgataattac catgacgtca tttttaccat      60
457 gataattacc atgacgtcat ttttaccatg ac                                92
459 <210> SEQ ID NO: 20
461 <211> LENGTH: 21
463 <212> TYPE: RNA
465 <213> ORGANISM: artificial sequence
467 <220> FEATURE:
469 <223> OTHER INFORMATION: synthetic oligo nucleotide
471 <400> SEQUENCE: 20
473 aagucagcug cucucaggua c                                21

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**VERIFICATION SUMMARY**

DATE: 04/12/2005

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Input Set : A:\Sequence Listing 5199-69.txt

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L:12 M:270 C: Current Application Number differs, Replaced Current Application Number